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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,899	02/09/2004	Craig Smith	14374.105	8764
22913 7590 02/28/2007 WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER HO, ALLEN C	
			ART UNIT 2882	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/28/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/774,899	Applicant(s) SMITH ET AL.	
	Examiner Allen C. Ho	Art Unit 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7-9, 12-14, 16-27, 30-35, 40, 41 and 43 is/are allowed.
- 6) ☒ Claim(s) 28, 29 and 36-39 is/are rejected.
- 7) ☒ Claim(s) 6, 10, 11, 15 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities:

Claim 6 recites the limitation "the bracket". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

2. Claims 10 and 11 are objected to because of the following informalities:

Claim 10 recites the limitation "the extended portion". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

3. Claim 15 is objected to because of the following informalities:

Claim 15 recites the limitation "the aperture of the bracket portion". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

4. Claim 42 is objected to because of the following informalities:

- (1) Claim 42 recites the limitation "the recess". There is insufficient antecedent basis for this limitation in the claim.

- (2) Claim 42 recites the limitation "the bracket portion". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites "the clamp portion extends inward through the aperture defined in the outer housing toward a central portion of the outer housing when it is attached to the bracket portion". The meaning of this recitation is unclear

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 7, 40, 41, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Findlay (U. S. Patent No. 2,344,543).

With regard to claim 1, Findlay disclosed an x-ray tube that comprises: an evacuated enclosure (6) containing an electron source (12) and an anode (11) positioned to receive

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electrons produced by the electron source; an outer housing (7) containing the evacuated enclosure; and a mounting assembly configured to mechanically support the evacuated enclosure within the outer housing, the mounting assembly comprises: a first mounting portion (20, 26, 29) that mechanically attaches to an outer surface of the outer housing, and a second mounting portion (18) that mechanically attaches to a portion of the evacuated enclosure, the second mounting portion being at least partially received within the first mounting portion.

With regard to claim 7, Findlay disclosed an x-ray tube as defined in claim 5, wherein the mounting assembly is further configured to mechanically attach the x-ray tube to a portion of an x-ray generating device (7).

With regard to claim 40, Findlay disclosed the x-ray tube as recited in claim 1, wherein the first and second mounting portions removably attach to each other (removable by any means).

With regard to claim 41, Findlay disclosed the x-ray tube as recited in claim 1, wherein the first mounting portion comprises a pair of opposing surfaces (on portion 26), one of which is substantially planar (distal end of portion 26), and the other of which has a shape that substantially conforms with the outer surface of the outer housing.

With regard to claim 43, Findlay disclosed the x-ray tube as recited in claim 1, wherein the first and second mounting portions each define a corresponding aperture, the apertures being substantially aligned with each other and with a window (17) of the x-ray tube.

9. Claims 36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramsey *et al.* (U. S. Patent No. 4,946,122).

With regard to claim 36, Ramsey *et al.* disclosed a mounting assembly that comprises: a bracket portion (38) configured to removably attached to a portion of a device (column 1, lines 19-24)), the bracket portion including an aperture (40) and defining a recess (defined by the depth of aperture 41 in Fig. 3) and associated seat that are substantially aligned with the aperture; and a clamp portion (60) that is at least partially received within the recess and positioned on the seat when the clamp portion and the bracket portion are in an assembled state, the clamp portion further defining an aperture (64) that is substantially aligned with the aperture of the bracket portion, and the clamp portion and bracket portion being configured such that a size of the bracket aperture is substantially unaffected by a change in size of the clamp aperture.

With regard to claim 37, Ramsey *et al.* disclosed the mounting assembly of claim 36, wherein the clamp portion is configured to be removably attached to the device.

10. Claims 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Scarla *et al.* (U. S. Patent No. 6,155,889).

With regard to claim 36, Scarla *et al.* disclosed a mounting assembly that comprises: a bracket portion (22) configured to removably attached to a portion of a device (10), the bracket portion including an aperture (28) and defining a recess (Fig. 3) and associated seat that are substantially aligned with the aperture; and a clamp portion (24) that is at least partially received within the recess and positioned on the seat when the clamp portion and the bracket portion are in an assembled state, the clamp portion further defining an aperture (34) that is substantially aligned with the aperture of the bracket portion, and the clamp portion and bracket portion being configured such that a size of the bracket aperture is substantially unaffected by a change in size of the clamp aperture.

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With regard to claim 37, Scarla *et al.* disclosed the mounting assembly of claim 36, wherein the clamp portion is configured to be removably attached to the device.

With regard to claim 38, Scarla *et al.* disclosed the mounting assembly of claim 36, wherein the bracket portion comprises a pair of opposing surfaces, one of which is substantially planar (the surface with multiple cable sockets 27), and the other of which is curved (Fig. 2).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Findlay (U. S. Patent No. 2,344,543) as applied to claim 1 above.

With regard to claim 2, Findlay disclosed an x-ray tube as defined in claim 1, wherein the first mounting portion comprises a bracket (20, 26, 29) that attaches to the second mounting portion (18). However, Findlay failed to disclose the bracket is attached to the second mounting portion using a plurality of screws.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ screws to attach the bracket to the second mounting portion, since a person would be motivated to use any equivalent means to attach the bracket to the second mounting portion.

With regard to claim 3, Findlay disclosed an x-ray tube as defined in claim 2. However, Findlay failed to disclose a bracket composed substantially of aluminum.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a bracket composed substantially of aluminum, since aluminum is light weight and easily machinable.

13. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scarla *et al.* (U. S. Patent No. 6,155,889) as applied to claim 36 above.

With regard to claim 39, Scarla *et al.* disclosed the mounting assembly of claim 36, wherein the bracket portion comprises a pair of opposing surfaces (top and bottom), wherein the recess defined by the bracket portion extends through the surfaces. However, Scarla *et al.* failed to disclose a curved surface.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a curved bottom surface, since a person would be motivated to provide a bottom surface that match a curved surface on which the bottom surface rests.

Allowable Subject Matter

14. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Claims 8, 9, 12-14, 16-27, and 30-35 are allowed.

16. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 8, 9, and 12-14, the prior art discloses an x-ray tube that comprises: an evacuated enclosure containing an electron source and an anode positioned to receive electrons produced by the electron source; and an outer housing containing the evacuated enclosure. However, the prior art fails to disclose a mounting assembly that comprises a bracket portion and a clamp portion as claimed.

With regard to claim 16-20, the prior art discloses a method of joining an evacuated enclosure to a structure, the method comprises: attaching a clamp portion of a mounting assembly to a bracket portion of the mounting assembly such that an aperture defined in the clamp portion is aligned with an aperture defined in the bracket portion. However, the prior art fails to teach or fairly suggest that the evacuated enclosure includes a window assembly attached to an aperture defined in the evacuated enclosure, and a step of attaching the clamp portion of the mounting assembly to an extended segment of the window assembly attached to the evacuated enclosure such that a window located in the window assembly is aligned with the apertures of the clamp portion and the bracket portion as claimed.

With regard to claims 21-27, the prior art discloses an x-ray tube that comprises: an evacuated enclosure containing an electron source and a rotary anode positioned to receive electrons emitted by the electron source; a window assembly attached about an aperture formed in the evacuated enclosure comprising an x-ray transmissive window. However the prior art fails to disclose a mounting assembly that comprises a clamp portion and a bracket portion as claimed.

With regard to claims 30-35, the prior art discloses an x-ray generating device that comprises: a device body; an x-ray tube that includes an evacuated enclosure containing an

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electron source and a rotary anode positioned to receive electrons emitted by the electron source; and a mounting assembly that attaches the x-ray tube to the device body, the mounting assembly including a bracket portion that mechanically attaches to a portion of the device body, and a clamp portion that frictionally engages a portion of the evacuated enclosure proximate an x-ray transmissive window that is located on a surface of the evacuated enclosure, wherein the clamp portion is also mechanically attached to the bracket portion. However, the prior art fails to disclose a mounting assembly that singularly supports the evacuated enclosure in a specified position with respect to the device body as claimed.

Response to Arguments

17. Applicant's arguments filed 01 December 2006 with respect to claims 8-15 have been fully considered and are persuasive. The rejections of claims 8-15 under 35 U.S.C. 102(b) have been withdrawn.

18. Applicant's arguments filed 01 December 2006 with respect to the rejection(s) of claim(s) 1, 2, and 7 under 35 U.S.C. 102(b) or 102(e) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Findlay (U. S. Patent No. 2,344,543).

19. Applicant's arguments filed 01 December 2006 with respect to the rejection(s) of claim(s) 36 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of

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rejection is made in view of Ramsey *et al.* (U. S. Patent No. 4,946,122) and Scarla *et al.* (U. S. Patent No. 6,155,889).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Allen C. Ho, Ph.D.
Primary Examiner
Art Unit 2882

09 January 2007